

Entrepreneurial Marketing Intentions and Behaviours among Students: Investigating the Roles of Entrepreneurial Skills, Entrepreneurial Self-efficacy, and Family Business Exposure

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Abstract

This study investigates the relationships between entrepreneurial skills (ES), entrepreneurial self-efficacy (ESE), entrepreneurial marketing intentions (EMI), and entrepreneurial marketing behaviours (EMB) of university students, while considering the influence of family business exposure as a moderating factor. A sample of 149 Malaysian university students was analysed using partial least square structural equation modelling (PLS-SEM) to assess the roles of ES, ESE, and EMI in predicting EMB. Our findings reveal that EMI partially mediates the effects of ES and ESE on EMB. In addition, having a family-owned business background did not affect the relationships in our model. However, students with friends involved in family businesses exhibited significantly higher levels of EMB due to acquired entrepreneurial skills than those without such connections.

Keywords. Entrepreneurial marketing, entrepreneurial skills, entrepreneurial self-efficacy, business education, reference group, social influence.

1. Introduction

Stimulating entrepreneurship has long been recognised as one of the best economic development strategies to assist a nation's economic growth and sustain its competitiveness (e.g. Peprah and Adekoya, 2020; Acs, Carlsson, and Karlsson, 2011). In marketing-oriented matters, entrepreneurial qualities, such as creativity, risk-taking, and proactivity, are essential for marketing-tailored behaviours, as individuals who possess these qualities enable organisations to identify unique market opportunities, develop innovative solutions, and respond quickly to shifts in customer needs and preferences (Morris, Schindehutte, and LaForge, 2002). This recognition prompted a re-examination of traditional marketing perspectives, leading to the establishment of the concept of *entrepreneurial marketing*. Specifically, *traditional marketing* has been defined as the strategic and tactical actions employed to create, communicate, and deliver value to customers by promoting products or services (Kotler, Keller, and Chernev, 2021). On the other hand, entrepreneurial marketing reflects an integrative framework that combines critical facets of contemporary marketing and entrepreneurship practices into a single holistic construct (Morris, Schindehutte, and LaForge, 2002). This approach emphasises change, complexity, a high level of market uncertainty, depleting resources, and innovation-tailored considerations (Nijssen, 2021). Accordingly, the ability to identify entrepreneurial qualities that stimulate entrepreneurial marketing intentions and behaviours is increasing in demand by organisations seeking to hire graduates. Therefore, studying entrepreneurial marketing intentions and behaviours is crucial, as they enable organisations to identify and exploit market opportunities, foster innovation, and enhance competitiveness in the rapidly evolving business landscape (Hacioglu et al., 2012; Morris, Schindehutte, and LaForge, 2002).

Identifying entrepreneurial marketing talents and developing and cultivating related skills is a complex and challenging endeavour (Nabi et al., 2017). Among various organisations with related mandates, higher education institutions play a pivotal role in the development of entrepreneurial marketing skills (Keat, Selvarajah, and Meyer, 2011; Hacıoglu et al., 2012). Universities act as ideal incubators for nurturing entrepreneurial cultures and aspirations among future business leaders (Nabi et al., 2017; Zahra, Wright, and Abdelgawad, 2014). Consequently, universities are witnessing increasing demand for entrepreneurship subjects and majors (Varamäki et al., 2015), as related aptitudes are increasingly valuable for a variety of business applications and processes worldwide (Landstrom, 2009; Mahmoud, Grigoriou, and Ball, 2022).

The purpose of entrepreneurship education is to develop students' understanding of the entrepreneurial process while cultivating attitudes and intentions that will enable them to become successful in entrepreneurial efforts (Wei, Liu, and Sha, 2019). While entrepreneurship is explicitly connected to opportunity exploitation (e.g. Venkataraman, 2019), marketing education also increasingly emphasises developing skills necessary to identify novel marketable opportunities (Stokes and Wilson, 2010). As noted earlier, this is a relatively novel trend, as marketing and entrepreneurship have existed as two separate domains in academia (Stokes and Wilson, 2010). From the traditional perspective, marketing as a discipline primarily concentrates on tactics and strategies to create, communicate, and deliver value to customers by promoting products or services (Kotler, Keller, and Chernev, 2021). This discipline encompasses a variety of related topics, including market segmentation, consumer targeting and engagement, branding, optimising marketing mix, product positioning, pricing strategies, and more (Baker, 2017). In contrast, entrepreneurship focuses on discovering, assessing, and utilising opportunities for new businesses venturing (Shane and Venkataraman, 2000). This area of study investigates the traits, behaviours, and decision-making processes of

entrepreneurs. It also explores the significance of innovation, risk-taking, and proactiveness in fostering business growth and economic development (Covin and Wales, 2018).

Notably, there is increasing evidence that the two subjects overlap in many critical considerations, such as the role of creativity and innovation, the value of new product development, and the prominence of customer networks and communications (Stokes and Wilson, 2010; Ahmadi and O'Cass, 2016; Bucciari, Javalgi, and Gross, 2021; Hulbert, Gilmore, and Carson, 2015). As we stipulated earlier, from a scholarly standpoint, the entrepreneurial perspective has changed the way marketing is considered and taught, modifying established perspectives from traditional marketing to entrepreneurial marketing (Carter and Jones-Evans, 2006; Holzweber, Mattsson, and Standing, 2015; Lindsay et al., 2014) with an increased focus on innovation and opportunity recognition (Stokes, 2000; Collinson and Shaw, 2001; Morris, Schindehutte, and LaForge, 2002). Consequently, entrepreneurial marketing is now viewed as an intersection between entrepreneurship and marketing, emphasising proactive identification and exploitation of opportunities, risk management, and innovativeness in product design and commercial processes (Bäckbro and Nyström, 2006; Kraus, Harms, and Fink, 2009).

We draw on the research of Stokes and Wilson (2010) to suggest a deeper understanding of how universities and organisations might conceptualise their approach to the development of entrepreneurial skills. Stokes and Wilson (2010) propose a three-dimensional approach to entrepreneurial education. In the first dimension, *context* refers to market, social and environmental factors and business disciplines such as marketing. In the second dimension, *behaviours* refer to entrepreneurial skills, attitudes, and behaviours. In the third dimension, *process* refers to starting new commercial projects, business and organisational processes, or the development of new products and brands (Stokes and Wilson, 2010). When taught as a holistic paradigm, these dimensions assist entrepreneurship scholars in developing entrepreneurial skills and self-efficacy among students to meet the industry's challenges.

The aim of this article is to empirically assess the effects of entrepreneurial skills and self-efficacy on entrepreneurial marketing intentions and behaviours among university business students. We further investigate whether this relationship can be moderated by having reference groups in a family business, focusing primarily on family and friends. While previous studies have considered some of these factors separately, there remains a gap in the literature concerning the role of family business exposure in the development of entrepreneurial marketing intentions and behaviours. Therefore, this study advances existing knowledge by exploring not only the impact of entrepreneurial skills and self-efficacy on marketing intentions and behaviours but also the moderating effect of family business exposure (Zellweger, Sieger, and Halter, 2011) on these relationships. These insights are valuable for businesses in their efforts to successfully identify and exploit market opportunities, foster innovation, and enhance competitiveness in the face of current and future challenges (De Massis et al., 2016; Chrisman, Chua, and Sharma, 2003). Moreover, by examining business students and their entrepreneurial aptitudes, our study makes several notable contributions to the literature. While numerous publications assess various aspects of entrepreneurial competencies (Gerli, Gubitta, and Tognazzo, 2011), most of these studies concern established entrepreneurs, whereas the early stage of the entrepreneurial process remains understudied (Al Mamun, Fazal, and Muniady, 2019). Additionally, we extend the existing literature by focusing specifically on the marketing-tailored entrepreneurial process. Finally, our study provides novel insights regarding the role of the family business experience as a stimulus for entrepreneurial intent and the consequent action.

2. Literature review and hypotheses

Entrepreneurial competencies refer to a specific set of abilities that enable entrepreneurs to utilise resources, identify marketable opportunities, and create and manage new enterprises (Al Mamun et al., 2016; Mitchelmore and Rowley, 2010). To better understand the importance of competencies, Strebler (1997) suggested considering competencies as *behaviours* that individuals demonstrate, and, in that vein, consider competencies as minimum *performance standards*. These generic competencies become specific when applied to entrepreneurial competencies. Entrepreneurial competencies have been identified as a specific group of competencies relevant to the exercise of successful entrepreneurship (Mitchelmore and Rowley, 2010).

2.1. Entrepreneurial Competencies and Family Business

The development of entrepreneurial competencies requires possessing various skills, aptitudes, and self-efficacy that allow entrepreneurs to identify opportunities, assess risks, and translate related intentions into entrepreneurial actions (Kutzhanova, Lyons, and Lichtenstein, 2009; Entrialgo and Iglesias, 2016). Previous studies indicate that entrepreneurial competencies influence new business venturing (Bird, 2019), sustainability and performance of established enterprises (Lewis and Churchill, 1983; Bird, 2019), and broader economic matters (Mitchelmore and Rowley, 2013).

While the role of an individual entrepreneur in organisational development is fairly well-researched (Gerli, Gubitta, and Tognazzo, 2011), the relevance of entrepreneurial competencies to entrepreneurial intentions and behaviour remains understudied (Al Mamun, Fazal, and Muniady, 2019). Moreover, in evaluating the role of entrepreneurial competencies, past literature focuses on factors related to individuals' general tendency to consider and engage in the development of new ventures. The relevance of entrepreneurial skills and aptitudes to specifically marketing-tailored entrepreneurial intentions and behaviours is less

clear (Al Mamun, Fazal, and Muniady, 2019). This limitation is particularly notable considering that the possession of market-oriented competencies is known to affect important entrepreneurial outcomes, such as the ability to innovate or to identify profitable market niches (Baker and Sinkula, 2009). Furthermore, marketing capabilities and market-orientated culture are known to be relevant to the development of effective organisational strategies (Ali, Hassan, and Gorondutse, 2017) that translate to superior performance (Narver and Slater, 1990; Morgan, Vorhies, and Mason, 2009; Boso, Story, and Cadogan, 2013).

Finally, research indicates that involvement in a family business constitutes an important factor in the formation of entrepreneurial values and attitudes (Carr and Sequeira, 2007). Family business ownership is, therefore, a direct catalyst for the development of entrepreneurial competencies (Dyer and Handler, 1994), making family business experience a unique and powerful resource in regard to entrepreneurial intentions and behaviours of individuals (Aldrich and Cliff, 2003; Dyer and Handler, 1994). Therefore, social interactions with relatives and/or friends who are involved in a family business are likely to influence how (and if) the possession of entrepreneurial skills and self-efficacy translates to entrepreneurial intentions and behaviours (Fairlie and Robb, 2007; Carr and Sequeira, 2007). Such social interactions are particularly pertinent to young prospective entrepreneurs, such as university students. Accordingly, our conceptual framework is designed to assess the effects of entrepreneurial skills and self-efficacy on entrepreneurial marketing intentions and behaviours amongst university business students. We also investigate whether this model can be moderated by having reference groups in a family business, focusing primarily on family and friends. To achieve our aim, we adopt Liu's (2017, p. 3) definition of marketing (itself, a synthesis of marketing theory and practice) *which states that marketing is the activities and value creation processes that facilitate exchange offerings within the domain of business and benefit the society at large.*

2.2. Entrepreneurial skills and entrepreneurial marketing intentions and behaviours

Starting a new business venture is a highly complex and risky endeavour that requires the possession and/or development of relevant skills and aptitudes (Davidsson, 1991; Phelan and Sharpley, 2012). In the extant literature, entrepreneurial competencies are broadly divided into two categories: functional competencies (such as marketing, communication, and creative thinking) and organisational competencies (such as leadership and problem-solving) (Smith and Morse, 2005). This important aspect of the human capital is critical for entrepreneurs' consideration and engagement in new business development (Shabbir, Mohd Shariff, and Shahzad, 2016).

Previous research (e.g. Roxas, 2014) has shown the importance of gaining entrepreneurial knowledge as a predictor of entrepreneurial intentions. While there is evidence that some individual characteristics of entrepreneurs, such as age, education, and work experience, influence entrepreneurial processes (Reynolds, Storey, and Westhead, 1994), the explicit role of entrepreneurial skills as a catalyst for marketing-tailored entrepreneurial intentions and behaviours is less clear (Yaghmaei and Ghasemi, 2015). Such skills, however, are very likely to play a vital role in individuals' ability to identify new customer preferences, evaluate market opportunities, and engage in the development of new ventures. Therefore, the possession of such skills is likely to draw attention and stimulate interest in marketing-oriented entrepreneurial processes, thus promoting the development of entrepreneurial marketing intentions. These skills are also likely to reduce doubt, translating entrepreneurial intentions into consequent actions and behaviours. Also, building on Ajzen's (2011) Theory of Planned Behaviour (TPB), accordingly, we stipulate that the possession of entrepreneurial skills accelerates entrepreneurial marketing intentions and behaviours. Therefore, we posit:

Hypothesis 1a: Entrepreneurial skills positively predict entrepreneurial marketing intentions.

Hypothesis 1b: Entrepreneurial skills positively predict entrepreneurial marketing behaviours.

2.3. Entrepreneurial self-efficacy and entrepreneurial marketing intentions and behaviours

Entrepreneurial self-efficacy reflects individuals' belief in their ability to engage and succeed in the development of new ventures (Boyd and Vozikis, 1994; Stroe, Parida, and Wincent, 2018). While most prospective entrepreneurs see new venture-related challenges as obstacles, individuals with high levels of self-efficacy are more likely to believe in their ability to successfully overcome related hurdles (Barbosa, Gerhardt, and Kickul, 2007; Nowiński et al., 2019; Li et al., 2020). Since self-efficacy enhances individuals' confidence in their professional aptitudes, entrepreneurial self-efficacy is shown to be a significant criterion for entrepreneurial intentions (Zhao, Seibert, and Hills, 2005). In the context of marketing-oriented entrepreneurship, similar logic applies. Specifically, we expect entrepreneurial self-efficacy to provide individuals with confidence in their ability to engage customers, and develop differentiated products and/or services, thus promoting the development of entrepreneurial marketing intentions. Furthermore, entrepreneurial self-efficacy is also likely to enhance individuals' confidence in their ability to identify profitable market niches and employ innovative marketing methods and strategies, thus translating entrepreneurial intentions to marketing oriented entrepreneurial behaviours. Building on the aforementioned argument as well as TPB, we posit:

Hypothesis 2a: Entrepreneurial self-efficacy positively predicts entrepreneurial marketing intentions.

Hypothesis 2b: Entrepreneurial self-efficacy positively predicts entrepreneurial marketing behaviours.

2.4. Entrepreneurial marketing intentions and entrepreneurial marketing behaviours

Entrepreneurial intention refers to individuals' intent to engage in activities related to the development of new business ventures (Ward, Hernández-Sánchez, and Sánchez-García, 2019; Yi, 2021). It represents an exploration of the ways in which entrepreneurial attitudes and behaviours can be applied to the development of marketing strategy (Janet and Ngugi, 2014). Not surprisingly, past research shows that individuals with high levels of entrepreneurial intention are likely to follow through on their intent and engage in entrepreneurial behaviours (Kautonen, van Gelderen, and Fink, 2015; Neneh, 2019; Li et al., 2020). However, the conceptualisation of this process in the literature suggests that intentions do not always lead to entrepreneurial action (van Gelderen et al., 2008). Furthermore, existing literature indicates that entrepreneurial intentions explain less than a third of the variance in entrepreneurial action and that the relationship between entrepreneurial intention and action may be conditioned on the particulars of entrepreneurial contexts (Shirokova, Osiyevskyy, and Bogatyreva, 2016; Neneh, 2019; van Gelderen et al., 2008). Accordingly, in consideration of marketing-oriented entrepreneurial efforts, it is important to examine the relationship between entrepreneurial marketing intention and entrepreneurial marketing behaviours. We expect entrepreneurial marketing intentions to stimulate follow-up activities, translating to a wide range of marketing-oriented entrepreneurial behaviours, such as the assessment of customer preferences, the development of products and services, and the explicit examinations of market circumstances. This theorisation concurs with TPB. Accordingly, we posit:

Hypothesis 3: Entrepreneurial marketing intentions positively predict entrepreneurial marketing behaviours

2.5. Family or friends in a family business, entrepreneurial skills, and entrepreneurial marketing intentions and behaviours

Involvement in a family business influences the development of entrepreneurial competencies (Dyer and Handler, 1994). Past literature indicates that family business experiences represent a powerful socialising influence on people's values, attitudes, and behaviours (Carr and Sequeira, 2007). As such, family business experience forms a valuable resource in regard to individuals' inclination to translate entrepreneurial aptitudes to entrepreneurial intentions and behaviours (Aldrich and Cliff, 2003; Dyer and Handler, 1994). Social interactions with this reference group (i.e., family members and friends with experience in family business management) are likely to be particularly pertinent to young inexperienced prospective entrepreneurs, such as university students. One such behaviour separating small business operators from marketing entrepreneurs (MEs) is that small business owners typically manage their operations, whereas MEs continuously strive for growth through innovation (Hills and Hultman, 2011). As discussed earlier, entrepreneurial skills play an important role in individual's ability to identify new customer preferences, evaluate market opportunities, and engage in the development of new ventures. In the context of marketing-oriented entrepreneurial efforts, social interactions with relatives and/or friends who are involved in a family business are likely to increase the likelihood that entrepreneurial skills will translate to entrepreneurial marketing intentions and, consequently, entrepreneurial marketing behaviours. Specifically, having a family firm context among acquaintances of prospective young entrepreneurs is likely to influence the ability of these individuals to assess the importance and value of their entrepreneurial competencies against specific entrepreneurial opportunities in the marketplace (Elfving, Brännback, and Carsrud, 2009; Davidsson, 1995). Therefore, these types of connections can stimulate and foster important processes related to deeper examinations of entrepreneurial projects by young individuals, thus stimulating a follow through from

entrepreneurial skills to entrepreneurial intentions and the consequent entrepreneurial behaviours. Notably, friends tend to be in a particularly strong position of trust for many prospective entrepreneurs (Francis and Sandberg, 2000; Nair, Gaim, and Dimov, 2020). As such, the associated influence on the decision-making of prospective entrepreneurs may be particularly significant if the considered individuals (connections) are their close friends. Accordingly, we posit:

Hypothesis 4a: *Having a reference group (family members) in a family business moderates the relationship between entrepreneurial skills and entrepreneurial marketing intentions such that the relationship becomes stronger.*

Hypothesis 4b: *Having a reference group (family members) in a family business moderates the relationship between entrepreneurial skills and entrepreneurial marketing behaviours, such that the relationship becomes stronger.*

Hypothesis 4c: *Having a reference group (friends) in a family business moderates the relationship between entrepreneurial skills and entrepreneurial marketing intentions such that the relationship becomes stronger.*

Hypothesis 4d: *Having a reference group (friends) in a family business moderates the relationship between entrepreneurial skills and entrepreneurial marketing behaviours such that the relationship becomes stronger.*

2.6. Family or friends in a family business, entrepreneurial self-efficacy, and entrepreneurial marketing intentions and behaviours

As noted in our rationale for Hypothesis 2, entrepreneurial self-efficacy reflects individuals' belief in their ability to engage and succeed in new business development (Boyd and Vozikis,

1994; Stroe, Parida, and Wincent, 2018). Entrepreneurial self-efficacy is expected (and empirically shown) to be a catalyst for entrepreneurial intentions (Zhao, Seibert, and Hills, 2005). Interactions among individuals with high levels of entrepreneurial self-efficacy and people who are actively engaged in the management of a family business are likely to provide additional references regarding the entrepreneurial process, increase confidence, and, therefore, enhance the likelihood of follow-through to entrepreneurial intentions. In the context of marketing-oriented entrepreneurship, similar logic applies. Specifically, in circumstances where prospective entrepreneurs have close acquaintances with family business owners, either relatives or friends, we expect the positive influence of entrepreneurial self-efficacy on entrepreneurial marketing intentions to be stronger.

Therefore, we posit:

Hypothesis 5a: *Having a reference group (family members) in a family business moderates the relationship between entrepreneurial self-efficacy and entrepreneurial marketing intentions such that the relationship becomes stronger.*

Hypothesis 5b: *Having a reference group (family members) in a family business moderates the relationship between entrepreneurial self-efficacy and entrepreneurial marketing behaviours, such that the relationship becomes stronger.*

Hypothesis 5c: *Having a reference group (friends) in a family business moderates the relationship between entrepreneurial self-efficacy and entrepreneurial marketing intentions such that the relationship becomes stronger.*

Hypothesis 5d: *Having a reference group (friends) in a family business moderates the relationship between entrepreneurial self-efficacy and entrepreneurial marketing behaviours, such that the relationship becomes stronger.*

2.7. Family or friends in a family business, entrepreneurial marketing intentions and behaviours

As stated earlier, we expect entrepreneurial marketing intentions to positively predict entrepreneurial marketing behaviours. It is intuitive to anticipate that individuals with high levels of entrepreneurial marketing intentions are likely to follow through on their intent and engage in entrepreneurial behaviours (Zellweger, Sieger, and Halter, 2011). We further stipulate that social interactions with relatives and/or friends involved in a family business will likely increase the likelihood that entrepreneurial marketing intentions will translate to entrepreneurial marketing behaviours. Specifically, social interactions with relatives and/or friends who are involved in a family business are likely to provide additional knowledge regarding marketing-tailored entrepreneurial processes, such as new product development or evaluation of customer preferences. Relatives who are business owners may also be considered a potential source of other relevant resources, such as capital or professional networks (Nair, Gaim, and Dimov, 2020), whereas friends with family business backgrounds are in a particularly strong position of trust and influence for prospective young entrepreneurs (Francis and Sandberg, 2000; Nair, Gaim, and Dimov, 2020). Accordingly, such social interactions are likely to enhance prospective entrepreneurs' confidence and increase the likelihood of a follow-through from entrepreneurial marketing intentions to related behaviours. Therefore, we posit:

Hypothesis 6a: *Having a reference group (family members) in a family business moderates the relationship between entrepreneurial marketing intentions and behaviours, such that the relationship becomes stronger.*

Hypothesis 6b: *Having a reference group (friends) in a family business moderates the relationship between entrepreneurial marketing intentions and behaviours, such that the relationship becomes stronger.*

Figure 1 offers a visualisation of the hypotheses introduced above, where arrows starting from “reference group (family member(s) or friend(s)) involvement in a family business” represent moderations.

INSERT FIGURE 1 ABOUT HERE

3. Methods

3.1. Sample

G-Power version 3.1.9.2 was used to determine the sample size. Using 0.95 as power level and 0.15 as effect size, a non-probability convenience sample size of 119 university students was the target that guided our data collection. Sunway University granted ethics approval for this research. The study drew upon a sample of university students from both public and private universities and academic institutions in Malaysia. Data were collected in 2021 via an online self-administered survey that included construct measures and demographic questions. With the survey conducted online, respondents were asked to provide their permission to participate in the study. Responses to the survey were kept anonymous. All participants were informed that their responses would be kept strictly confidential and only be used for scientific research. Overall, our analysis drew on 149 valid responses. The sample was predominantly female (56%), aged between 20-21 (46%), ethnically Chinese (60%), Malay (20%) and Indian (20%). Moreover, the majority were Malaysian nationals (96%), belonging to an upper-middle-class family (48%), with a background in family business (62%) and having at least one friend involved in a family business (69%).

3.2. Measures

Reference group (family member(s) vs friend(s)) involvement in a family business was assessed using two binary (yes/no) questions. Those questions were: “Do you belong to a

business family background?” and “*Do you have any friends involved in any kind of own or family business?*”. Appendix 1 illustrates the validated measures used in this research. We adopted the measures of Al Mamun, Fazal, and Muniady (2019) to assess entrepreneurial skills, Carr and Sequeira (2007) to assess entrepreneurial self-efficacy and Li et al. (2020) to assess entrepreneurial marketing intentions and behaviours. All the measures were scored on a five-point Likert scale. We used various methods to test the validity and reliability of the measures used in this study. First, we utilised the Fornell-Larcker Criterion (see Table 1) to assess the discriminant validity using the Average Variance Extracted values (herein AVEs). Table 1 shows the square root of each construct’s AVE greater than its *correlations* with the remaining variables hence establishing the discriminant validity for all of the measures employed (Fornell and Larcker, 1981). Table 2 indicates that all of the constructs had AVEs higher than 0.5 (Fornell and Larcker, 1981), Composite Reliability values (herein CRs) above 0.7 (Hair et al., 2022), and Variance Inflation Factor values less than five hence establishing the discriminant validity, construct reliability, and convergent validity for all of the measures employed in this study. We ran Common-Method Bias (herein CMB) tests before conducting path and multigroup analyses with a Partial Least Squares Structural Equation Modelling (herein PLS-SEM) using SmartPLS 3 (Ringle, Wende, and Becker, 2015). CMB tests are required when using subjective, self-report measures from a single survey (Podsakoff et al., 2003). The inner Variance Inflation Factor (herein VIF) values were all less than 3.3, as Table 3 shows. Hence, no CMB issues were detected (Kock, 2015).

INSERT TABLE 1 ABOUT HERE

INSERT TABLE 2 ABOUT HERE

INSERT TABLE 3 ABOUT HERE

Structural equation modelling (herein SEM) with the variance-based method or partial least squares (PLS-SEM) was the principal statistical tool for testing research hypotheses. We conducted our analysis using SmartPLS 3 (v. 3.3.3) software (Ringle, Wende, and Becker, 2015). Our choice of the PLS-SEM technique was based on prior research recommending this approach for examining predictive models (e.g. Hair, Ringle, and Sarstedt, 2014). The literature (e.g. Mahmoud et al., 2022) shows that most data are likely to fail to meet the multivariate normality criterion. Furthermore, an expanding body of literature has substantiated PLS-SEM for empirical research studies containing data sensitive to non-normality consternation (Hair et al., 2022). In addition, PLS-SEM is becoming more widely used and recognised in business research (e.g. Gao, Low, and Yeo, 2022; Athayde and Hart, 2012).

Path analysis and multigroup analysis (MGA) were two methods we used to examine our hypotheses. This procedure covered the deployment of standardised betas (β : for direct effects), unstandardised betas (B: for indirect effects), and the accompanying t-values in bootstrapping mode. The standardised root mean square residual (SRMR) was used to evaluate the model's fit to our data (Henseler et al., 2014). In addition, we employed f^2 to evaluate effect sizes and PLSpredict to test the out-of-sample prediction, as recommended by Hair et al. (2019).

Henseler, Ringle, and Sarstedt (2016) argue that multigroup analyses (MGAs) using PLS-SEM could risk producing 'misleading' findings unless the invariance of their measures is evidenced. This criterion may be met using the measurement invariance of composite models (MICOM) technique (Henseler, Ringle, and Sarstedt, 2016). As a result, before performing any

multigroup comparisons, both configural invariance and compositional invariance, according to Hair et al. (2019), should be validated and established (in this case, with no data pooling). Since we adopted a PLS-SEM technique, the measurement configural invariance was, by default, achieved (Hair et al., 2018). As such, we continue to see whether the second condition, compositional invariance, was established. In this case, we did a permutation check. Table 4 reveals that all the variables have Permutation P-values greater than 0.05. As a result, we consider the null hypothesis to be supported, meaning that the initial correlations of the constructs are not considerably different from 1, proving compositional invariance (Hair et al., 2018).

INSERT TABLE 4 ABOUT HERE

4. Results

We used Bootstrapping set at 5,000 sub-samples (Preacher and Hayes, 2008), and found that entrepreneurial skills positively predict entrepreneurial marketing intentions ($\beta = 0.399$, $P < 0.001$, $f^2 > 0.15$) and entrepreneurial marketing behaviours ($\beta = 0.248$, $P < 0.05$, $f^2 > 0.02$). We also found that entrepreneurial self-efficacy positively predicts both entrepreneurial marketing intentions ($\beta = 0.512$, $P < 0.001$, $f^2 > 0.35$) and entrepreneurial marketing behaviours ($\beta = 0.269$, $P < 0.05$, $f^2 > 0.02$). Finally, entrepreneurial marketing intentions positively predict entrepreneurial marketing behaviour ($\beta = 0.298$, $P < 0.05$, $f^2 > 0.02$). As a result, we judge H1a, H1b, H2a, H2b, and H3 as supported (see Table 5).

INSERT TABLE 5 ABOUT HERE

Table 6 reveals that all unstandardised betas are positive and significant at a probability value less than 0.05. We therefore conclude that entrepreneurial marketing intentions not only directly predict entrepreneurial marketing behaviours, but also serves as a mediator through which additional positive effects of entrepreneurial skills ($B = 0.118$, $SD = 0.069$, $P < 0.05$) and self-efficacy ($B = 0.153$, $SD = 0.069$, $P < 0.05$) travel to entrepreneurial marketing behaviours.

INSERT TABLE 6 ABOUT HERE

In line with Hu and Bentler (1999), the SRMR value is found to equal 0.05, which is less than 0.08, indicating that our conceptual model fits our data well. Finally, Table 7 illustrates that, when compared to the naive LM benchmark, most of the observed variables in the PLS-SEM evaluation possess lower mean absolute error (MAE) and root mean square error (RMSE) scores (Hair et al., 2019), implying that the model has a medium level of predictive power (Shmueli et al., 2019).

INSERT TABLE 7 ABOUT HERE

We perform a multigroup analysis (MGA) to examine the hypothetical model invariance related to the involvement of either the participant or any of their friends in a family business to determine if the involvement of such reference groups in a family business can moderate the hypothesised path envisaged by Figure 1. We use t-values associated with the comparisons indicated in the parametric analyses. The findings (see Table 8) demonstrate that the path, representing the direct effects of entrepreneurial skills on entrepreneurial marketing

behaviours, is non-equivalent across the levels of involvement in a family business only when it is friend(s)' involvement. Explained differently, having friend(s) involved in a family-run business is suggested to boost the improvement of entrepreneurial marketing behaviours as a result of possessing entrepreneurial skills ($\beta_{Yes} = 0.41, P < 0.01; \beta_{No} = -0.07, P = 0.595; t(|No - Yes|) = 2.435$). Therefore, we judge H4a, H4b, H4c, H5a, H5b, H5c, H5d, H6a and H6b as unsupported whilst H4d supported, meaning that having friend(s) involved in a family business is likely to enhance the effectiveness of equipping students with entrepreneurial skills as a way to nurture their entrepreneurial marketing behaviours. Figure 2 illustrates the results of hypotheses testing.

INSERT TABLE 8 ABOUT HERE

INSERT FIGURE 2 ABOUT HERE

5. Discussion

We set out to empirically assess the effects of entrepreneurial skills and entrepreneurial self-efficacy on entrepreneurial marketing intentions and behaviours among a sample of business students and the moderation effects of this relationship by exposure to reference groups (friends and family members) who are involved in a family business. Our study found support for entrepreneurial skills positively predicting entrepreneurial marketing intentions. This finding is consistent with those of Chang and Rieple (2013), who empirically linked entrepreneurial skills with marketing competencies, and those of Mitchelmore and Rowley (2013) whose work focused on female entrepreneurs. In addition, consistent with Samuel, Ernest, and Awuah (2013), our results reveal that entrepreneurial marketing intentions positively predict entrepreneurial marketing behaviour. Furthermore, our analysis found support for

entrepreneurial self-efficacy positively predicting entrepreneurial marketing intentions and behaviours. Finally, consistent with Zhang and Ma (2009), our study indicates that interactions with *friends* who are involved in a family business strengthens the above-stated relationship among entrepreneurial skills and entrepreneurial marketing intentions and behaviours. Remarkably though, we find that such a reinforcing effect does not hold for *family members* engaged in a family business.

We make several notable contributions to the literature. First, our findings provide valuable insights regarding the role of entrepreneurial competencies in the early stage of entrepreneurial processes. Second, we extend existing literature regarding the relevance of entrepreneurial skills and self-efficacy to entrepreneurial intentions and behaviours by focusing specifically on the marketing-tailored entrepreneurial process. This perspective is particularly pertinent for young prospective entrepreneurs, such as university students. Third, our study provides novel insights regarding the role of the family business experience as a stimulus for entrepreneurial intent and the consequent action. We specifically show that social interactions with friends who are involved in a family business enhance the likelihood that entrepreneurial skills will be practically applied. Even stronger, our empirical results suggest that such interactions are a prerequisite for entrepreneurial skills to be translated directly in entrepreneurial marketing behaviours.

5.1. Practical implications

The present research offers several valuable insights that support the academic preparation of next-generation entrepreneurs. Specifically, we looked at two aspects of education as predictors of entrepreneurial intentions and behaviours. Notably, both the entrepreneurial skill development of students and the developing of student self-efficacy were separately and significantly related to the desired outcomes: entrepreneurial marketing intentions and

behaviours. This suggests that universities should focus on these elements of academic training to prepare students for the demands and expectations of future employers who want students who can identify and exploit market opportunities.

Our second objective was to understand if there is a moderating effect associated with having friends or family member in family-run businesses. The findings here indicated a moderating effect where we found support for hypothesis 4d only, such that the moderation was significant between entrepreneurial skills and entrepreneurial marketing behaviours. We interpret this to mean that academic focus on entrepreneurial skills seems to be supplemented by real-life exposure to friends—but not family members—with entrepreneurial experiences. Hence, we suggest that student entrepreneurial behaviours can be guided in the classroom, but the value of internships or exposure to real entrepreneurs increases the likelihood of students' self-reported behaviours towards pursuing entrepreneurial marketing activities.

5.2. Research limitations and implications

The present study has several limitations. First, the setting and context of this research limit the generalisability of the results to others with potentially distinct cultural styles or situational patterns. For instance, based on the cultural metrics offered by Hofstede Insights (2021), Malaysia rates very high on the power distance scale (with a score of 100, compared to the USA's 40), showing that people are prepared to accept a hierarchical society in which everyone has a position without additional justification. Furthermore, with a score of 26, Malaysia is ranked low on individualism (the USA scores 91), showing that collectivism is a stronghold in Malaysian culture. This kind of culture nurtures strong bonds where everybody takes responsibility for the members of their group (Hofstede Insights, 2021; Toh et al., 2022). Such variations in prevalent cultural patterns motivate future research to address this limitation by replicating our study in culturally different contexts or further investigating the cross-cultural

effects on the invariance of the model presented by this study. Moreover, the Marketing/Entrepreneurship connection has facilitated our understanding of how small firms function and carry out marketing activities (O'Brien and Clark, 1997; Carson, McGowan, and Hill, 1996; Stokes, 1997). Therefore, with entrepreneurial marketing believed to play an instrumental role in vitalising businesses in post-crisis eras (e.g. Miles et al., 2016), future research is suggested to investigate how the relationships reported in this study can be further moderated by crisis (e.g. COVID-19) perceptions.

Second, despite satisfying the conditions of concluding meaningful multigroup analysis results, the sample size for this study is relatively small for capturing variances across the groups. Of 149 responses (the whole sample), 93 (62%) participants had a family business background vs 56 (38%) who did not; furthermore 103 (69%) of the students had at least one friend with a family business background vs 46 (31%) who did not. Thus, using larger samples could help detect additional occurrences of non-invariance. The study's use of non-probability sampling (convenience) may limit the generalisability of our findings. Nonetheless, many survey methodologies include bias (e.g., non-response); accordingly, the present inquiry interpretations are predicted to exceed the sampling procedure's constraints (Mahmoud et al., 2021). Employing force answering (FA) to limit the quantity of missing data might cause bias in the forced responses. As a result, we encourage future research to utilise methods other than FA. For example, utilising "soft reminders" in conjunction with an additional choice of "Prefer not to answer" (Sischka et al., 2020) or "Not wish to disclose" when responding to questionnaire questions might help reduce missing data without increasing the threat of FA bias (Mahmoud et al., 2022).

Third, the study results were limited in that they were produced using quantitative methods. The study lacked qualitative data that would have been necessary for generating more profound insights into the moderation results. Thus, future research may look at conducting

qualitative inquiries to answer the “why” questions about the non-equivalence resulting from having reference group(s) engaging in a family business.

Fourth, the hypothesised model could have benefited from including control variables such as study type (business-oriented vs other) and study year (as likely later-year students have better insights into their intentions and may already engage in a behaviour). Notwithstanding, such inclusion would have required theoretical justification as substantial as the inclusion premises of the independent and dependent variables (c.f. Wysocki, Lawson, and Rhemtulla, 2022; Spector, 2022; Becker, 2005). Future research is, therefore, encouraged to re-examine our hypotheses alongside controls with proper conceptualisation.

Finally, we adopted a cross-sectional approach in which all data were obtained at a single time point. Although cross-sectional research has been criticised for having a limited capacity for establishing causation (Langdrige, 2013), it has also been argued (Spector, 2019) that the ability of longitudinal designs to reflect causality has been exaggerated and that they offer few advantages over cross-sectional designs in the majority of instances where they are used. Additionally, cross-sectional research findings can still be regarded as interpretable and valid if conducted on a solid theoretical premise (Tharenou, Donohue, and Cooper, 2007). Nonetheless, we call for further replicating studies using a longitudinal paradigm.

In conclusion, notwithstanding the above limitations, we believe our paper makes an insightful contribution to our knowledge of the determinants of entrepreneurial marketing intentions and behaviours.

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Figures

Figure 1: Conceptual model

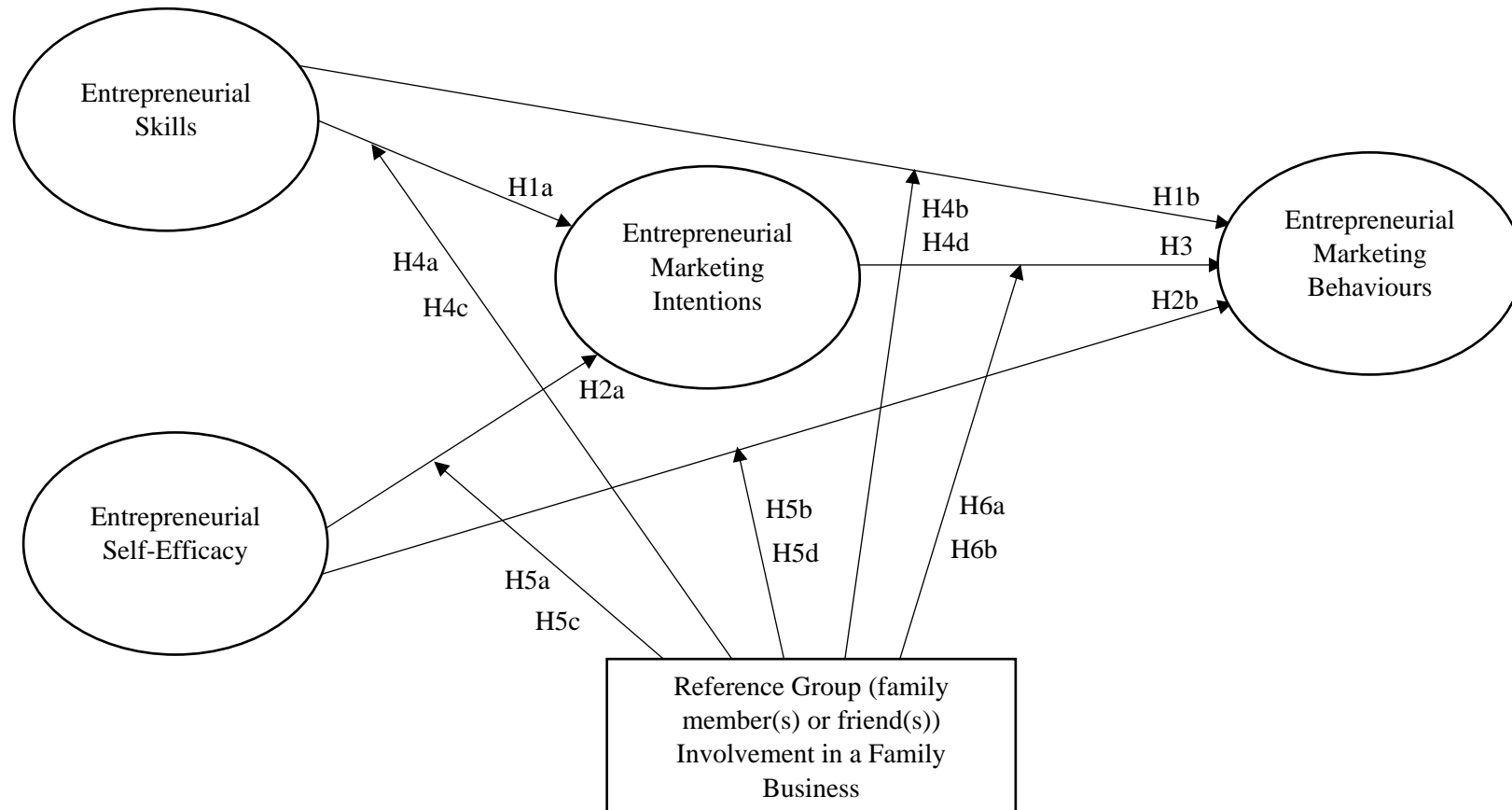
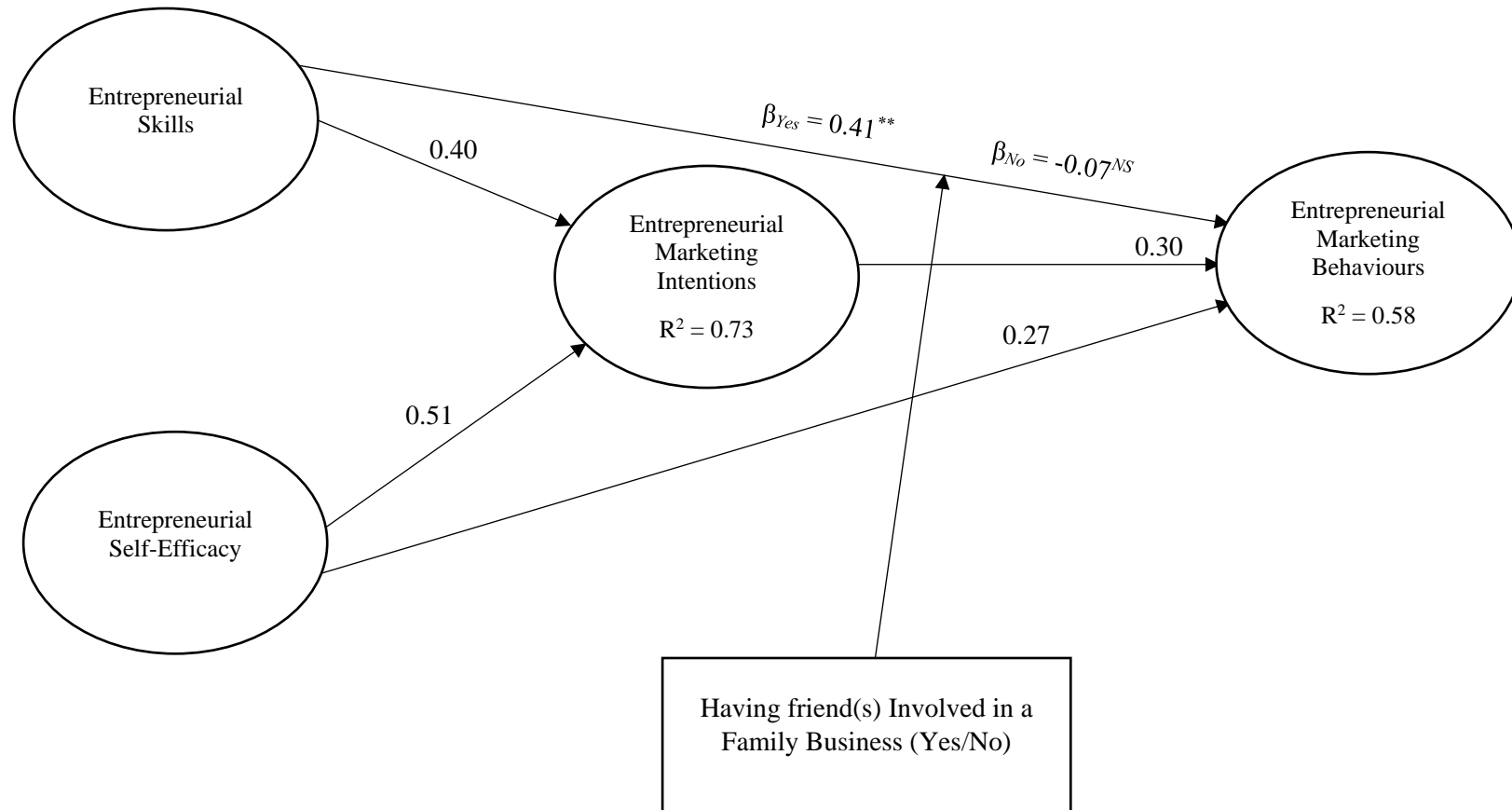


Figure 2: Hypotheses testing results



Tables

Table 1: Fornell-Larcker Criterion

| | Mean | SD | Entrepreneurial Marketing Behaviour | Entrepreneurial Marketing Intentions | Entrepreneurial Self-Efficacy | Entrepreneurial Skills |
|--------------------------------------|------|------|-------------------------------------|--------------------------------------|-------------------------------|------------------------|
| Entrepreneurial Marketing Behaviour | 3.58 | 1.06 | 0.86 | | | |
| Entrepreneurial Marketing Intentions | 3.78 | 0.84 | 0.708 | 0.827 | | |
| Entrepreneurial Self-Efficacy | 3.84 | 0.79 | 0.695 | 0.813 | 0.841 | |
| Entrepreneurial Skills | 3.77 | 0.77 | 0.682 | 0.783 | 0.756 | 0.79 |

Note. The diagonal represents the square root of each construct's AVE

Table 2: Outer loadings, VIFs, construct reliability & validity and descriptive statistics

| | Entrepreneurial Marketing Behaviour | Entrepreneurial Marketing Intentions | Entrepreneurial Self-Efficacy | Entrepreneurial Skills | VIF |
|----------------------------|--|---|--|-----------------------------------|------------|
| EB1 | 0.836 | | | | 2.528 |
| EB2 | 0.825 | | | | 2.394 |
| EB3 | 0.878 | | | | 3.399 |
| EB4 | 0.848 | | | | 2.697 |
| EB5 | 0.889 | | | | 3.604 |
| EB6 | 0.874 | | | | 3.293 |
| EB7 | 0.872 | | | | 3.332 |
| EI1 | | 0.787 | | | 1.65 |
| EI2 | | 0.894 | | | 2.601 |
| EI3 | | 0.825 | | | 2.051 |
| EI4 | | 0.799 | | | 1.84 |
| ES1 | | | | 0.753 | 1.506 |
| ES2 | | | | 0.768 | 1.619 |
| ES3 | | | | 0.797 | 1.639 |
| ES4 | | | | 0.839 | 1.83 |
| ESE1 | | | 0.812 | | 1.47 |
| ESE2 | | | 0.856 | | 1.876 |
| ESE3 | | | 0.854 | | 1.896 |
| α | 0.941 | 0.845 | 0.793 | 0.799 | |
| rho_A | 0.941 | 0.851 | 0.792 | 0.804 | |
| CR | 0.952 | 0.896 | 0.879 | 0.869 | |
| AVE | 0.74 | 0.684 | 0.707 | 0.624 | |

Table 3: Inner VIFs values

| | Entrepreneurial Marketing Behaviour | Entrepreneurial Marketing Intentions | Entrepreneurial Self-Efficacy | Entrepreneurial Skills |
|--------------------------------------|--|---|--------------------------------------|-------------------------------|
| Entrepreneurial Marketing Intentions | 2.843 | | | |
| Entrepreneurial Self-Efficacy | 2.989 | | | |
| Entrepreneurial Skills | 2.77 | | | |
| Entrepreneurial Marketing Behaviour | | 2.232 | | |
| Entrepreneurial Self-Efficacy | | 2.719 | | |
| Entrepreneurial Skills | | 2.674 | | |
| Entrepreneurial Marketing Behaviour | | | | 2.507 |
| Entrepreneurial Marketing Intentions | | | | 3.099 |
| Entrepreneurial Self-Efficacy | | | | 2.635 |
| Entrepreneurial Marketing Behaviour | | | 2.519 | |
| Entrepreneurial Marketing Intentions | | | 2.918 | |
| Entrepreneurial Skills | | | 2.446 | |

Table 4: Compositional invariance assessment

| No vs Yes | Having friend(s) Involved in a Family Business | | | | Having Family Member(s) in a Family Business | | | |
|-------------------------------|--|------------------------------|-------|----------------------|--|------------------------------|-------|----------------------|
| | Original Correlation | Correlation Permutation Mean | 5.00% | Permutation p-Values | Original Correlation | Correlation Permutation Mean | 5.00% | Permutation p-Values |
| Entrepreneurial Behaviour | 1 | 1 | 0.999 | 0.528 | 0.997 | 0.999 | 0.997 | 0.099 |
| Entrepreneurial Intentions | 1 | 0.999 | 0.999 | 0.903 | 1 | 0.999 | 0.998 | 0.837 |
| Entrepreneurial Self-Efficacy | 0.998 | 0.999 | 0.998 | 0.074 | 0.999 | 0.999 | 0.998 | 0.444 |
| Entrepreneurial Skills | 0.997 | 0.998 | 0.993 | 0.308 | 0.996 | 0.998 | 0.994 | 0.091 |

Table 5: H1a, H1b, H2a, H2b and H3 testing

| Hypothesis | Path | β | t | f^2 | Decision |
|-------------------|---|---------------------------|-----------------------|-------------------------|-----------------|
| H1a | Entrepreneurial Skills -> Entrepreneurial Marketing Intentions | 0.399** | 5.368** | > 0.15 | Supported |
| H1b | Entrepreneurial Skills -> Entrepreneurial Marketing Behaviour | 0.248* | 2.493* | > 0.02 | Supported |
| H2a | Entrepreneurial Self-Efficacy -> Entrepreneurial Marketing Intentions | 0.512** | 7.023** | > 0.35 | Supported |
| H2b | Entrepreneurial Self-Efficacy -> Entrepreneurial Marketing Behaviour | 0.269* | 1.983* | > 0.02 | Supported |
| H3 | Entrepreneurial Marketing Intentions -> Entrepreneurial Marketing Behaviour | 0.298* | 2.408* | > 0.02 | Supported |

** $P < 0.001$; * $P < 0.05$

Table 6: Indirect effects testing

| Path | B | SD | t |
|--|----------|-----------|----------|
| Entrepreneurial Self-Efficacy -> Entrepreneurial Marketing Intentions -> Entrepreneurial Marketing Behaviour | 0.153* | 0.069 | 2.22* |
| Entrepreneurial Skills -> Entrepreneurial Marketing Intentions -> Entrepreneurial Marketing Behaviour | 0.118* | 0.054 | 2.177* |

* $P < 0.05$

Table 7: Predictive performance of the PLS model vs Benchmark LM

| Indicator | PLS | | LM | |
|-----------|-------|-------|-------|-------|
| | RMSE | MAE | RMSE | MAE |
| EB6 | 1.04 | 0.776 | 1.077 | 0.809 |
| EB4 | 0.91 | 0.686 | 0.934 | 0.7 |
| EB2 | 0.939 | 0.693 | 0.93 | 0.662 |
| EB1 | 0.919 | 0.689 | 0.867 | 0.652 |
| EB3 | 0.919 | 0.693 | 0.957 | 0.71 |
| EB9 | 1.049 | 0.79 | 1.079 | 0.817 |
| EB5 | 1.022 | 0.774 | 1.044 | 0.783 |
| EI1 | 0.769 | 0.614 | 0.798 | 0.629 |
| EI3 | 0.776 | 0.588 | 0.826 | 0.626 |
| EI4 | 0.74 | 0.569 | 0.77 | 0.57 |
| EI2 | 0.641 | 0.499 | 0.657 | 0.51 |

Table 8: Multigroup/moderation analysis

| Path | Having friend(s) Involved in a Family Business | | Having Family Member(s) in a Family Business | |
|---|---|---------------------|---|---------------------|
| | β (No - Yes) | t (No - Yes) | β (No - Yes) | t (No - Yes) |
| Entrepreneurial Marketing Intentions -> Entrepreneurial Marketing Behaviour | -0.252 ^{NS} | 0.949 ^{NS} | 0.307 ^{NS} | 1.333 ^{NS} |
| Entrepreneurial Self-Efficacy -> Entrepreneurial Marketing Behaviour | -0.302 ^{NS} | 1.093 ^{NS} | -0.182 ^{NS} | 0.683 ^{NS} |
| Entrepreneurial Self-Efficacy -> Entrepreneurial Marketing Intentions | -0.002 ^{NS} | 0.014 ^{NS} | -0.047 ^{NS} | 0.305 ^{NS} |
| Entrepreneurial Skills -> Entrepreneurial Marketing Behaviour | -0.473 [*] | 2.435 [*] | -0.208 ^{NS} | 0.962 ^{NS} |
| Entrepreneurial Skills -> Entrepreneurial Marketing Intentions | 0.062 ^{NS} | 0.405 ^{NS} | 0.011 ^{NS} | 0.073 ^{NS} |

* $P < 0.05$; NS: Non-significant

Appendix 1: Measures used in the study

| Variable | Code | Item | Scoring | Source |
|--------------------------------------|------|--|--|-------------------------|
| Entrepreneurial Marketing Behaviour | EB1 | I have discussed product or business idea with potential customers. | 5-point Likert scale. 1 = 'strongly disagree,' 5 = 'strongly agree' | (Li et al., 2020) |
| | EB2 | I will sell products or services. | | |
| | EB3 | I have collected information about markets or competitors | | |
| | EB4 | I have written a marketing plan. | | |
| | EB5 | I have started marketing or promotion efforts. | | |
| | EB6 | I have purchased material, equipment, or machinery for the business. | | |
| | EB7 | I have started product/service development. | | |
| Entrepreneurial Marketing Intentions | EI1 | I am ready to do anything to adopt innovative marketing methods in the future | 5-point Likert scale. 1 = 'strongly disagree,' 5 = 'strongly agree' | (Li et al., 2020) |
| | EI2 | My professional goal is to become a customer-centric entrepreneur | | |
| | EI3 | I will make every effort to start and run my own future firm with customers in mind. | | |
| | EI4 | I intend to start a firm someday to make a difference in people's lives. | | |
| Entrepreneurial Skills | ES1 | I consider myself very creative. | 5-point Likert scale. 1 = 'strongly disagree,' 5 = 'strongly agree' | (Al Mamun et al., 2019) |
| | ES2 | I have adequate problem-solving skills. | | |
| | ES3 | I possess high level of leadership. | | |
| | ES4 | I possess adequate entrepreneurial skill to manage the enterprise. | | |
| Entrepreneurial Self-Efficacy | ESE1 | I am convinced that I can successfully discover new business opportunities. | 5-point Likert scale. 1 = 'strongly disagree,' 5 = 'strongly agree' | (Carr & Sequeira, 2007) |
| | ESE2 | I am convinced that I can successfully create new products | | |
| | ESE3 | I am convinced that I can successfully commercialize ideas | | |